

IN THE CLAIMS

Please cancel Claims 23 and 24 without prejudice.

1. (original) A method to prevent or reduce agglomeration of magnetic particles wherein the magnetic particles are exposed to a varying magnetic field.
2. (original) A method to determine the spatial distribution of magnetic particles in an examination area of an object of examination with the following steps:
  - a) Generation of an imaging magnetic field with a spatial distribution of the magnetic field strength such that the area of examination consists of a first sub-area with lower magnetic field strength and a second sub-area with a higher magnetic field strength,
  - b) Change of the spatial location of both sub-areas in the area of examination so that the magnetization of the particles changes locally,
  - c) Acquisition of signals that depend on the magnetization in the area of examination influenced by this change, and

d) Evaluation of said signals to obtain information about the spatial distribution of the signals in the area of examination, wherein the magnetic particles before or during the determining of the spatial distribution of the magnetic particles in the examination area are exposed to a varying magnetic field at least some of the time, more particularly periodically or continuously such as to reduce or prevent agglomeration of the magnetic particles.

3. (original) A method according to claim two, characterized in that the gradient field in the area of examination has a varying magnetic field superimposed on the imaging magnetic field at least some of the time, more particularly periodically or continuously, more particularly, in at least parts of the first sub-area with lower magnetic field strengths.

4. (original) A method as claimed in claim 1, characterized in that the strength of the varying magnetic field is sufficient to cancel out those attractive forces resulting in the clumping or agglomeration between neighboring particles in the area of

examination

5. (Previously Presented) A method as claimed in claim 1, characterized in that the varying magnetic field is applied, more particularly, at an equal strength in all three spatial components.

6. (Previously Presented) A method as claimed in claim 1, characterized in that the particles have an average size or expansion of at least 30, more particularly, at least 40 nm.

7. (Previously Presented) A method as claimed in claim 1 characterized in that the varying magnetic field can be applied, locally restricted, in the area of examination until the clumping or agglomeration of magnetic particles in this location is at least partially resolved.

8. (Previously Presented) A method as claimed in claim 1, characterized in that a varying magnetic field with a frequency in the range of approx. 1 kHz to 10 MHz, preferably 10 to 500 kHz is used.

9. (Previously Presented) A method as claimed in claim 1, characterised in that the field strength of the varying magnetic

field is at least two times higher than the field strength of the imaging magnetic field.

10. (Previously Presented) A method as claimed in claim 1, wherein the magnetic particles are monodomain particles and wherein the field strength of the varying magnetic field is at least 30, preferably at least 50 mTesla.

11. (Previously Presented) A method as claimed in claim 1, wherein the magnetic particles comprise a nonmagnetic core covered with a magnetic coating and wherein the field strength of the varying magnetic field is at least five mTesla.

12. (Previously Presented) A method as claimed in claim 1, wherein the varying magnetic field has a power of at least 500 W and is applied in intermittent pulses such that the average power input is less than 500 W.

13. (Previously Presented) A method according to claim 1, wherein the varying magnetic field is applied as one or more pulses having an amplitude reducing to zero in a time sufficient to increase the distance between agglomerated particles sufficiently to prevent re-agglomeration.

14. (Previously Presented) A method according to claim 1, wherein the magnetic particles are in a liquid medium in the examination area and the frequency of the varying magnetic field is chosen in view of the viscosity of said medium.

15. (original) A method according to claim 14, wherein the medium surrounding the magnetic particles is blood and the frequency of the varying magnetic field is between 0.7 and 1.3 MHz.

16. (Previously Presented) A method according to claim 2, wherein the varying magnetic field is applied to magnetic particles shortly before administering to the examination area.

17. (Previously Presented) A method according to claim 2, wherein magnetic particles are administered to the examination area in an agglomerated state and wherein in only a part of the examination area the particles are de-agglomerated.

18. (Previously Presented) A method according to claim 2, wherein the frequency of the varying magnetic field is close to the frequency of the imaging magnetic field and wherein the exposure to the varying magnetic field and the exposure to the imaging magnetic field alternates.

19. (original) A method according to claim 18, wherein the frequency of the varying magnetic field is 0.8 to 1.2 times the frequency of the imaging magnetic field.

20. (Previously Presented) A method as claimed in claim 1, characterized in that the magnetic particle is a multi or mono-domain particle that can be reverse magnetized by Neel rotation and/or that the reverse magnetization is caused by Brownian rotation.

21. (Previously Presented) A method as claimed in claim 1, characterized in that the magnetic particle is a hard or soft magnetic multi-domain particle.

22. (original) An apparatus to determine the spatial distribution of magnetic particles in an area of examination in an object of examination comprising:

- a) means to generate a magnetic field with a spatial distribution of the magnetic field strength such that the area of examination consists of a first sub-area with lower magnetic field strength and a second sub-area with a higher magnetic field strength,

- b) means to change the spatial location of both sub-areas in the area of examination so that the magnetization of the particles changes locally,
- c) means for the acquisition of signals that depend on the magnetization in the area of examination influenced by this change,
- d) means for the evaluation of said signals to obtain information about the spatial distribution of the signals in the area of examination and
- e) means to impose in the area of examination, more particularly, in at least parts of the first sub-area with lower magnetic field strengths, a varying magnetic field at least some of the time, more particularly periodically or continuously.

23. (Cancelled).

24. (Cancelled).